Remarks

Claims 1-7 and 9-20 remain in the application. Claim 8 is canceled by this amendment.

By this amendment, claim 1 has been amended to place the case in condition for allowance or in better condition for appeal. Claim 1 has only been amended to incorporate the elements of dependent claim 8 into claim 1. Applicant respectfully submits that no new matter has been added, and that his specification supports the changes made. In addition, applicant respectfully submits that the amendments place the case in condition for allowance or in better condition for appeal. Further, no new issues are presented by this amendment because the elements of claim 8 have only been incorporated into claim 1 and thus no new search required.

Response to 35 U.S.C. §103(a) Rejection

Claims 1-20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Wieczorek et al., USP 6,821,840, (hereinafter "Wieczorek"). This rejection is respectfully traversed in view of the amendments made herein and the remarks presented hereafter.

Claim 1 calls for a method for forming an isolation region comprising, among other things, forming the plurality of shapes in a matrix, wherein adjacent rows of shapes are offset from each other. Applicant's FIG. 2 illustrates this feature the best, clearly showing that shapes 13 are offset from each other in adjacent rows (in other words, when looking at applicant's structure from the top, the center of the first shape in the second row is not formed below, or in a straight line from, the center of the first shape in the first row). By providing the adjacent rows of shapes offset from each other, void or air gap

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formation and high stresses are minimized (see applicant's specification on p. 3, 1. 31-34), which improve reliability and device performance. As stated in applicant's specification on p. 4, 1. 7-9, voids or air gaps have been shown to cause significant problems in prior art structures.

Applicant respectfully submits that Wieczorek fails to make claim 1 obvious because Wieczorek does not show nor suggest a method of forming an isolation region including forming a tub with a plurality of shapes in a matrix, <u>wherein adjacent rows of shapes are offset from each other</u>. Specifically, Wieczorek is completely silent as to how isolation structures 102 or 202 are positioned. Wieczorek does not disclose or even provide any motivation to provide that his isolation structures be formed offset from each other in rows. For at least these reasons, applicant respectfully submits that claim 1 is allowable over Wieczorek.

Claims 2-7 depend from claim 1 and are believed allowable for at least the same reasons as claim 1.

Claim 10 calls for, a process for forming an integrated circuit device including forming a tub region within a semiconductor layer, wherein tub region includes a matrix of shapes comprising offset rows. The method further calls for forming a dielectric region within the matrix of shapes.

Claim 10, also having the limitation of adjacent rows being offset from each other, should be allowable for at least the same reasons as claim 1.

Claims 12-16 depend from claim 10 and are believed allowable for at least the same reasons as claim 10.

Claims 10-20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Burns et al., USP 6,034,389, (hereinafter "Burns"). This rejection is respectfully traversed in view of the remarks presented hereafter.

Claim 10 calls for, a process for forming an integrated

circuit device including forming a tub region within a
semiconductor layer, wherein tub region includes a matrix of
shapes comprising offset rows. As described above, Applicant's
FIG. 2 illustrates this feature the best, clearly showing that
shapes 13 are offset from each other in adjacent rows. By
providing the adjacent rows of shapes offset from each other,
void or air gap formation and high stresses are minimized, which
improve reliability and device performance.

Applicant respectfully submits that Burns fails to make
claim 10 obvious because Burns does not show nor suggest a method
of forming a matrix of shapes comprising offset rows.
Specifically, Burns shows shapes that are not offset in adjacent
rows. The shapes of Burns are spaced apart equally from each
other in each adjacent row. Burns does not disclose or even
provide any motivation to provide that his shapes be formed
offset from each other. For at least these reasons, applicant
respectfully submits that claim 1 is allowable over Burns.

Claims 11-17 depend from claim 10 and are believed allowable
for at least the same reasons as claim 10.

Claim 18 calls for a semiconductor device including a region
of semiconductor material. A dielectric tub is formed in the
region of semiconductor material, wherein the dielectric tub
includes a matrix of passivated shapes, and wherein adjacent rows
of passivated shapes are offset.

Claim 18, also having the limitation of adjacent rows being
offset from each other, should be allowable for at least the same
reasons as claim 10.

Claims 19-20 depend from claim 18 and are believed
allowable for at least the same reasons as claim 18.

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In view of all of the above, it is believed that the claims are allowable, and the case is now in condition for allowance, which action is earnestly solicited.

Respectfully submitted,

Gordon M. Grivna

Kevin B. Jackson
Attorney for Applicants
Reg. No. 38,506
Tel. (602) 244-4885

ON Semiconductor
Law Dept./MD A700
P.O. Box 62890
Phoenix, AZ 85082-2890

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